

Federal Communications Commission
WC Docket No. 10-222
EDU 2011 Application
December 17, 2010

Onslow County Schools
200 Broadhurst Rd.
Jacksonville, NC 28541

Application Amount: \$605,220
Cellular Broadband Accounts: 1,441

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1. A full description of the current or planned Applicant Wireless Program, including but not limited to:

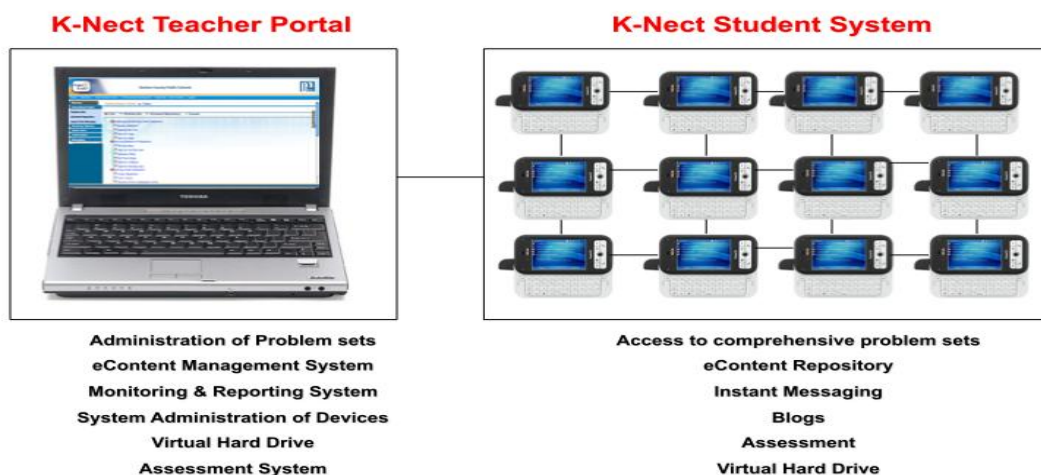
A. The nature of the Applicant Wireless Program, including the extent to which the use of connectivity is interactive and utilizes the Internet,

Background

Until the implementation of Project K-Nect, the use of mobile learning devices leveraging 3G (broadband wireless) technologies had never been tested in an authentic K-12 educational setting. Project K-Nect was designed to create resources for secondary *at-risk* students to focus on increasing their skills related to math and science. In its first phase, Project K-Nect included 100 at-risk 9th grade students from 2 urban and 2 rural schools located in the following North Carolina counties: Onslow, Winston-Salem and Durham for the 2007- 2008 school year. The Project was a direct result of a previous award of \$1M made by Qualcomm to assess the impact of utilizing handheld devices on student achievement. Participating students received Smartphones with access to supplemental math content aligned to their teacher's current lesson plan objectives. Smartphones were assigned to individual students and teachers. All participants were able to take home the devices. The multi-mode devices enabled the students to gain access to instructional resources regardless of their physical location. Access to the network was obtained via 3G mobile broadband or Wi-Fi. Phase I focused exclusively upon the examination of research outcomes associated with Algebra I. The research demonstrated a clear correlation between utilization of Project K-Nect and increased achievement in Algebra. As a result of this success, Qualcomm agreed to provide a second round of funding to further examine the research outcomes in other subject areas, expand the size of the cohort and add additional pieces functionality for instruction. Qualcomm's generous commitment provided funding for the second semester of the 2008-09 school year and the first semester of the 09-10.

Project Overview

Project K-Nect encompasses an instructional/administration utility accessible via desktop/laptop web browser and a student system accessible via smartphones and laptops/netbooks/desktops. The instructional/administration module is designed to provide teachers and/or administrators with access to a closed portal site that provides the following functionality.



a) Instructional Center (Teacher/Administrator View)

The instructional center is populated with sequenced primary Algebra I instructional units aligned and correlated to problem sets developed by Math Forum, North Carolina State Standards, problem solving strategies and additional supplemental resources. Teachers are able to assign problem sets to their entire class or individual students. Delivery schedules are made available for the teachers based upon pacing guides and correlated to their individual textbooks. Teachers are able to change the delivery schedule of the problem sets at any time. In addition to the problem sets, teachers are able to add instructional resources to an e-Content Repository. The e-Content Repository includes web links to resources or files viewable on the device (ppt, xls, pdf, doc) that further support the student in achieving the necessary skill set to solve the specified problem. A preview tab is available so that teachers can insure the digital resource can be properly viewed on the device. Finally, the system allows other teachers or authorized users to rate resources that have been added to the repository.

b) System Administration (Teacher/Administrator View)

Through the integration of a 3rd party product from SOTI, teachers or delegated administrators are able to monitor and remotely enable/disable different feature sets on the device such as a camera, instant messaging, and restrict or turn off voice services. In addition, delegated staff at receive automated notifications if a student attempts to breach one of the acceptable use policies (i.e., cheating, cyber bullying, etc.). These features will be further described in the student system section.

c) Reporting (Teacher/Administrator View)

The Project K-Nect system includes a reporting tool that makes available default reports and allows for customized reporting based upon inputs that include:

- Individual navigation path for Problem Set web sessions (site pages, duration, sequence)
- Individual records of text usage during Problem Set sessions (text, start/stop, contact)
- Individual record of phone usage during Problem Set sessions (start/stop, contact)
- Individual performance on embedded assessments (attempts, response, submission time)
- Time spent in each module (Problem set, eContent Repository, Social Networking)
- Number of Blogs Submitted

The student module encompasses a comprehensive set of resources to supplement the primary instructional services. The student module includes three system layers:

d) Problem Sets (Student View)

Problem sets include the following: a multimedia review of the lesson plan unit; video describing the utilization of the problem solving strategy; presentation of the problem; applying the problem solving strategy; multimedia simulations providing the student with an audio/visual view of the problem; at least two assessment based test items; alignment to their local textbook. The problems have content that stems from real-world situations and will be represented using visual effects, e.g. animation, simulation, pictorial, graphical, tabular along with oral and verbal representations. The problems contain content of interest to students in grade 9, age 14-15 years, such as NASCAR racing; music; and sports. In order to view a sample problem set, please visit the following link: <http://www.projectknect.org/theBigRace.html>

In addition to the problem sets, students have access to the e-Content repository under which

digital resources are made available that have been submitted by K-Nect instructors or staff from Math Forum. Each resource is aligned by the state textbook unit, problem set and state standard. The system allows students to rate and comment on resources. Furthermore, prior to viewing a resource, students are able to see a complete list of resources available and aligned to the unit with average ratings.

e) Social Networking

Students have access to peer-to-peer collaboration tools that will include blogging and instant messaging. Individual communities are formed for each problem that is assigned. All content submissions to the site are stored within the community established for the specific problem. This feature allows users to go back into the system to utilize previously submitted content to assist them in maintaining mastery of the lesson plan unit and allow future students to build upon content already created. The students have access to an authoring/editing tool to allow them to post content via their mobile device. Students are able to post the following types of content in the blogs: video, text, and pictures, ppt, doc, pdf. For instant messaging, students are able to determine what other students are online utilizing the following classifications:

- Students seeking help from other students
- By Classroom
- By School

Students have the option of logging into the system as an anonymous user, but the system administrator will always be able trace the identity of the end user. Instant messaging features will allow up to 10 students to participate in a chat.

B. How long the Applicant Wireless Program has been in operation and the mobile wireless device(s) being used,

History

Today, Project K-Nect is entering its seventh semester or third year in Onslow County Schools. The Project has added geometry, algebra 2, pre-calculus, calculus and statistics in order to track the longitudinal effectiveness of the application. In addition to the expansion of curriculum, Onslow County also received a \$2.5M award from the Department of Defense Education Activity (DODEA) in order to expand the project to encompass all 9th grade algebra I students. The DODEA funded portion of the Project is named, Onslow Connect (<http://www.onslowconnect.org>). Through public-private partnerships with Qualcomm and DODEA, Onslow County makes the Project resources available to approximately 1500 students and over 30 teachers during the school year 2010 – 2011.

While students have been provided with devices (integrated mobile broadband chips) and access to instructional content, Onslow County was unable to cover the costs associated with 100% off campus mobile broadband. As a result, Onslow County is only able to provide for connectivity to approximately 100-150 students. Through this application, Onslow County is seeking to provide 100% of its algebra I students with access to off campus mobile broadband connectivity.

C. A description of any technical issues associated with implementing the Applicant Wireless Program, including an analysis of any problems with the availability of wireless access to students or patrons off the school or library premises and how those issues are being or will be addressed by the school or library:

Technical Issues

Technical issues associated with the implementation of Project K-Nect and Onslow Connect centered around two key areas: a) configuration and deployment of devices and b) establishing internet connectivity via Wi-Fi and/or cellular broadband.

a) Configuration and Deployment

With the task of deploying over 1400 netbooks en masse required us to re-evaluate our deployment strategy. In the past we were using Netware 4.5 to deploy and manage computers within the school system. While sufficient for past deployments, we recognized the need to change our operating system to reduce maintenance and allow off-campus usage of the netbooks. To meet our new goals, a conversion to Microsoft Active Directory and System Center Configuration Manager (SCCM) was done to allow rapid deployment of hardware/software and to manage existing systems remotely.

b) Internet Connectivity

With the additional devices on school campuses there was an increased demand for hi speed Wi-Fi. To address this problem, the IT department used capital outlay funds to upgrade the wireless infrastructure at all seven high schools. Three of the high schools have campus wide upgrades to the wireless infrastructure that allow high demand wireless access to all spaces of the campus. The remaining four campuses have wireless access for all spaces on campus and increased bandwidth capabilities (high demand) for the math classes. With additional funding from state, local, and Race to the Top, we will be expanding high demand wireless capacity to the four remaining high schools as needed.

By addressing the configuration, deployment, and campus internet connections, we have provided students the ability to use 1:1 computing devices while on campus. However, without off-campus internet connectivity, we are limited in our ability to provide instructional opportunities outside of the classroom.

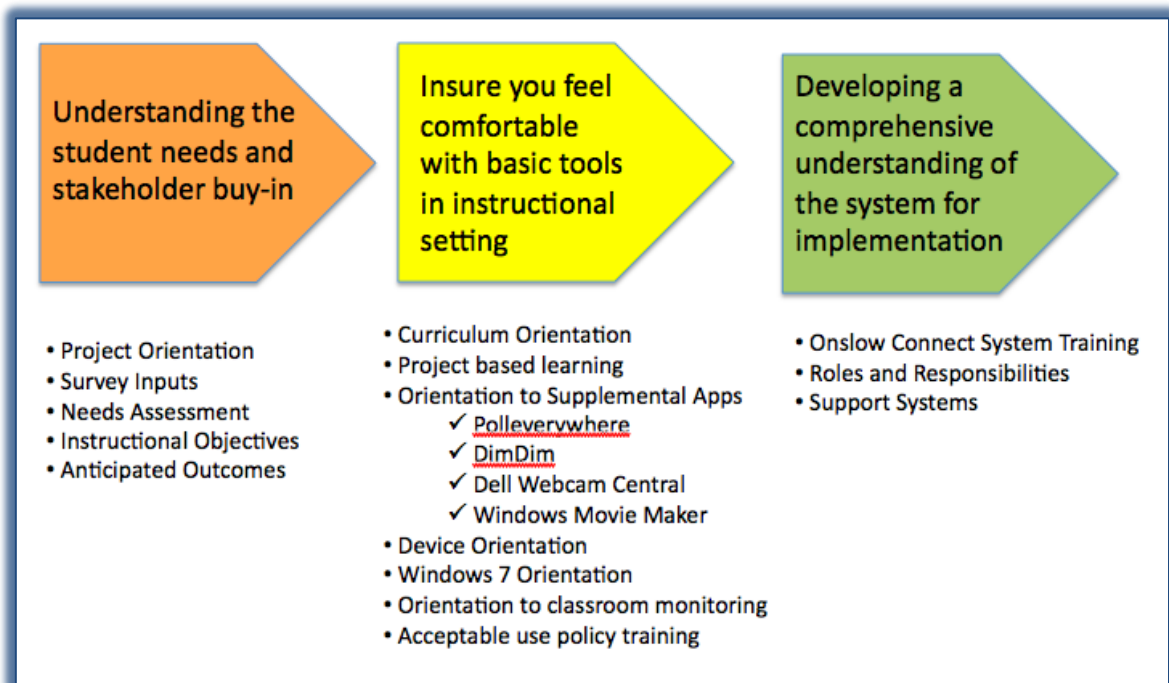
D. What training has been or will be provided to teachers, librarians, students or parents to implement the Applicant Wireless Program, and

Training

Professional development has been provided to all current 9th grade algebra I teachers, high school based instructional technology coordinators and high school administrators. The following is a summary of the combined Project K-Nect and Onslow Connect training rollout.

School Year	#of Staff	High Schools	Hours	# of Students
2007-08	10	Dixon, Southwest	30	50
2008-09	15	Dixon, Southwest, Richlands	20	125
2009-10	45	Dixon, Southwest, Richlands, Swansboro, Jacksonville, White Oak, Northside, Onslow County Learning Center	25	400
2010-11	45	Dixon, Southwest, Richlands, Swansboro, Jacksonville, White Oak, Northside, Onslow County Learning Center	10	1500

The foundation of the professional development program was built upon the following iterative stages:



All staff development resources based upon the above foundation are available at the following url:
http://www.onslowconnect.org/Professional_Development.html.

E. The extent to which the Applicant Wireless Program is integrated with federal, Tribal, state, regional or local governmental or non-profit initiatives to achieve educational or community access outcomes:

Onslow County Schools accesses the internet through the North Carolina Research and Educational Network (NCREN) which is funded by the Department of Public

Instruction of North Carolina. NCREN is a high speed internet backbone developed specifically for the colleges, universities and K12 institutions in the state of North Carolina.

2. The poverty level based on the percentage of students eligible for a free or reduced-price lunch under the national school lunch program (NSLP) or a federally approved alternative mechanism, and the current discount rate of the school or library:

During the school year 2009 – 2010, ten thousand two hundred eighty four students, (or forty three percent of our student population), in Onslow County Schools were part of the federally funded Free and Reduced Meal Program. This equates to an E-Rate aggregated discount level of sixty three percent for all schools within the district.

This application focuses on our math program(s) within all seven of our high schools. The aggregated E-Rate discount rate for the high schools is fifty three percent. Based on these numbers, Onslow County Schools will be applying for E-Rate discounts at the district average of sixty three percent.

3. The financial need of the school or library, including any additional budgetary hardships, notwithstanding the school or library's current discount rate:

As with all school districts in North Carolina, Onslow County Schools has been financially impacted due to the states financial crisis. Over the last two years we have seen five to ten percent decreases in state funds with another five to ten percent decrease anticipated for the school year 2011-2012. This has impacted all schools in several key areas:

- No money was allocated for textbooks
- Limited professional development
- Technology funds were significantly reduced and are targeted for elimination in the 2011-2012 state budgets
- Increased class sizes and reduction in teachers/teacher assistants
- Non instructional staff reductions

Even with the constraints that have been placed on the school system. We recognize that we only get one chance at educating our children and have continued our initiatives to ensure that all students/staff in the district have an opportunity to incorporate technology into their learning environments.

4. All costs, including those eligible for E-rate support and those not eligible for E-rate support, associated with implementing the Applicant Wireless Program, including but not limited to costs for equipment such as e-readers or laptops, access and connection charges, teacher training, librarian training, or student/parent training;

K-NECT/Connect Budget

To fully implement the K-NECT/Onslow Connect program WITH cellular broadband for the

upcoming school year will require approximately \$950,000. This number takes into consideration that the majority of the devices have already been purchased, and staff development/training is on-going. The majority of the cost for implementation of cellular broadband will be the monthly cellular service that will be needed. With 1441 devices at a cost of \$42 per month for 10 months of service, the estimated cost for one year of cellular broadband will be \$605,220. Budget details are as follows:

<i>K-NECT/Connect Budget</i>	
2011 - 2012 School Year	TOTALS
Services	
Project Management	\$25,000
Training	\$9,500
Maintenance & Support	\$27,500
Monitoring and Evaluation	\$0
Curriculum Development and Allignment	\$0
Hosting Fees	\$18,000
Carrier Fees (1441 devices @ \$42 Per Month)	\$605,220
TOTAL YTD ANNUAL	\$685,220
Hardware	
Mobile Devices (441 Devices)	\$176,400
Servers	\$0
	\$0
	\$0
TOTAL YTD ANNUAL	\$176,400
Software	
Licensing Fees	\$80,000
TOTAL YTD ANNUAL	\$0
Administrative	
Travel	\$8,366
Telecommunications	\$1,000
Office Supplies	\$750
TOTAL YTD ANNUAL	\$10,116
PROJECT TOTAL YTD ANNUAL	\$951,736

5. The committed school or library resources available to implement the entire Applicant Wireless Program, including whether those funds are from the school or library's general budget or from an outside funding source

Funding for K-Nect and Onslow Connect is currently being provided through several sources including:

- DODEA grant – This grant from the Department of Defense was established to provide schools with military dependents additional funding that will support our 1:1 computing initiative, student to student counseling services and professional development. This is a three year grant and we will be in the third year of the grant during school year 2011 – 2012. Funds from this grant has allowed us to purchase netbooks and provided additional training and project management. Total amount of the grant was \$2.5M.
- State/local/federal funds – In addition to the DODEA grant, we use state/local/federal funds to purchase switches, access points, wireless controllers, web filtering, and servers. These funds are managed at the central office for all of the facilities and average \$750,000 per annum.

Computers, printers, and end user devices are purchased by the individual schools and is based on the instructional needs of the individual sites.

6. The effect EDU2011 support for off-premise connectivity is likely to have upon the school's or library's projects:

Off campus access enables learners to access instructional resources regardless of their physical location or economic status. Onslow County has built over the course of this initiative a focus on the integration of project-based learning. Project based learning encompasses a heavy dependency on communication and collaboration with students, teachers and administrators. Strong efficacy with increased student achievement and utilization of project-based learning has been shown with off campus access. It is anticipated that with increased access to instructional resources, students will increase their math proficiency levels.

7. An analysis of the cost-effectiveness of the current or planned Applicant Wireless Program as compared to the use of other types of technology that would also meet the Program's objectives:

Onslow County has examined the implementation model associated with its initiative. Through the analysis, Onslow has found the following benefits associated with a traditional one to one implementation with Wi-Fi versus a mobile learning device with off campus mobile broadband services:

- **Device and location independence** enables users to access systems regardless of their location or what device they are using, e.g., PC, mobile.
- **Reliability is enhanced** by way of multiple redundant access points (Wi-Fi and 3G), which makes it suitable for continuity and disaster recovery.
- **Client Hardware is generally cheaper** because the District is able to fully integrate a mobile cloud implementation as students will have access to network resources regardless of their physical location. The District will not be required to acquire devices that contain large moving disk drives and minimizes requirements to have access to powerful application memory and processors. The devices also will have a longer period before requiring an upgrade or becoming obsolete. There are fewer moving parts and one upgrades the server and network instead because the limitation on performance is the display resolution which has a very long life cycle.
- **Simple software upgrade path.** If the peak resource usage is above a pre-defined limit, it is a relatively simple process to add another component to a server rack (be it power, processing, storage), boosting resources to exactly the amount required. The existing client devices can continue to serve alongside the new.
- **Capital expenditures are minimized associated with network infrastructure costs** as the 3G infrastructure is owned by the carrier and does not need to be purchased or managed directly by the school system.

In addition to the above, Onslow County has estimated the total cost of ownership associated with a traditional one to one implementation is approximately \$1,500 per student. This number encompasses the following:

- Laptop Acquisition Price
- Laptop Support Costs
- LMS (Learning Management System)
- Network Capital Expenditures
- Network Management
- Instructional Content
- Professional Development
- Instructional Technology Support

This model does not include costs associated with 3G or off campus mobile broadband services. Onslow County estimates future costs associated with its implementation model that is built around a cloud services model to total no more than \$500-\$700 per student.

The latest reports concerning the total cost of ownership associated with a traditional one to one implementation are estimated to be \$1500 per student. This represents a cost savings of approximately \$800-\$1000 per student.

8. Any relevant technology planning documents and, if applicable, a statement of long-term objectives for the Program

Onslow County Schools Mission Statement is “Excellence in Education”, and to accomplish our mission we use a strategic planning process that outlines our goals and objectives at the district and school level. In addition to this, a five year technology plan is developed which is in direct alignment with our strategic plans. These plans can be located on our website www.onslow.k12.nc.us under strategic plans.

9. A description of the specific measures taken, or that will be taken, to ensure compliance with the Children’s Internet Protection Act and measures to protect against waste, fraud, and abuse:

Websense, the system-wide filtering system is available equally to all students and staff. This tool has the capability to provide detailed reports based on user ID, date, time and class of offense. The setting of this filtering system can be edited to “block” and “unblock” certain sites at the principal’s request. In addition, Microsoft’s Active Directory (a network security element) in combination with Trend virus/malware prevention software protects student computers throughout the school district from unsolicited software attacks on the computers. This blended approach to security allows us to monitor and report at the student/computer level any transactions that are occurring.

10. A description of internal policies and enforcement procedures governing acceptable use of the wireless devices used in the Program off the school or library’s premises.

Board policies are in place and are used to establish appropriate usage of technology within the school district. Some of the policies include: Acceptable Use, Copyright, Materials Selection, Internet and the Educational Program, Web Page Development and Data Privacy. All Board Policies can be found on-line at www.onslow.k12.nc.us.

In addition to the board policies, Acceptable Use Forms are reviewed and signed by staff, student and parents prior to any laptop or netbook being issued to the user.

Required Information (schools only). The applications filed by schools also must contain the following information:

- (1) The location of the school; and (2) The name of the school applicant, along with a complete list of the individual schools that will be served, including their billed entity numbers:**

Name, Location and Billed Entity Numbers

As mentioned throughout this application, we are applying for cellular broadband service for seven high schools. Detailed information for these schools is as follows:

School	Address	Billed Entity #
Dixon High School	160 Dixon School Rd., Holly Ridge, NC	29701
Jacksonville High	1021 Henderson Dr., Jacksonville, NC	29811
Northside High	365 Commons Drive South, Jacksonville, NC	227332
Richlands High	401 Woodson St., Richlands, NC	29863
Southwest High	1420 Burgaw Highway, Jacksonville, NC	29813
Swansboro High	161 Queens Creek Rd, Swansboro, NC	29871
White Oak High	1001 Piney Green Rd, Jacksonville, NC	29822

Name of School Applicant

Contact information for the schools identified above and for this application is:

Contact: Steve Myers
Title: Asst. Superintendent for Auxiliary & Information Services
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phone: (910) 455-2211 ext. 20501
fax: (910) 989-2130

- (3) A description of the school district or school, including the type of school, such as private, public, charter, or other special type of school:**

Description of the School District

The Onslow County Schools is system divided into seven districts: Jacksonville, Commons, Richlands, Southwest, Dixon, Swansboro, and White Oak. Serving these communities are 35 public schools which include 20 elementary schools, 8 middle schools, and 7 high schools. The community is also served by specific programs housed at a pre-school center and an alternative learning center site. All of the schools in our county are accredited by the AdvancED Southern Association of Colleges and Schools/CASI.

- (4) A description of the Program's curriculum objectives, the grade levels included, and the number of students and**

teachers involved and/or being served as part of the program;

Project K-Nect's curriculum is based on Drexel University's Math Forum. This curriculum is research-based with emphasis on problem solving and scaffolding. The repository of 18 math problems is aligned with state standards and can be easily downloaded by teachers into students' devices. The focus is to engage the students in the application of problem-solving strategies as tools for thinking about and solving problems. The problems will address key concepts that are aligned with the Wyoming's Algebra 1 Course of Study. The curricular foundation is animated problem-based learning, which has the capability to be relevant to youth today and reflect multiculturalism.

Problem-based learning: A particular emphasis of the design of the Problem of the Week (PoW) environment is rich problem-solving contexts which allow learners to draw on their range of math knowledge skills in problem solving. This places the emphasis on thinking about the context of the problem rather than simply drawing on an algorithm for problem solution. The design also involves explaining the solution strategy, a practice that leads the learner to reflect on choices and to revise.

The students will solve one to three challenging, non-routine mathematic problems. The problems have content that stems from real-world situations and will be represented using visual effects, e.g. animation, simulation, pictorial, graphical, tabular, along with oral and verbal representations. Problems contain content of interest to students in grades 8,9, and 10, such as NASCAR racing, music, and sports.

UNITS	PROBLEM SOLVING STRATEGIES	PROBLEM SETS
Graphing and Solving Linear Equations	Structured Guess and Check Use Tables/Charts Generate Expressions and Equations	P1 P2 P3
Solving Systems of Equations	Structured Guess and Check Use Tables/Charts Generate Expressions and Equations	P4 P5 P6
Solving Linear Equations	Structured Guess and Check Use Tables/Charts Generate Expressions and Equations	P7 P8 P9
Solving Linear Inequalities	Structured Guess and Check Use Tables/Charts Generate Expressions and Equations	P10 P11 P12
Exponents, Polynomials and Factoring	Structured Guess and Check Use Tables/Charts Generate Expressions and Equations	P13 P14 P15
Exponents, Expressions and Equations	Structured Guess and Check Use Tables/Charts Generate Expressions and Equations	P16 P17 P18
Quadratic Expressions and Equations	Structured Guess and Check Use Tables/Charts Generate Expressions and Equations	P19 P20 P21

(5) A summary of any data collected by the school on Program outcomes and achievement of Program objectives.

Current Research/Outcomes

PsyMes Consulting conducted independent research on the viability and efficacy of phase one of Project K-Nect on student achievement in mathematics. Researchers from PsyMes Consulting monitored and collected quantitative and qualitative data from January 7, 2008 through June 5, 2008. The following is a summary of some of the major research outcomes associated with phase one:

- Four out of the four cohort Project K-Nect Algebra I classes outperformed the other Algebra classes taught by the same teachers on the NC End of Course Exam (EOC) for Algebra I.
- All four cohort Project K-Nect classes outperformed the other Algebra classes taught by the same teachers with their final grades.
- The aggregate gain of all four cohorts between the pre-test and post-test administered by the research team was 20%.
- Students report using the phone for at least one hour to complete their Algebra work.
- Students reported increased parental support for their instruction in Algebra.
- Students reported increased communication and collaboration with their teachers.
- Students reported increased communication and collaboration with their peers on questions with homework assignments.

- Students reported a better understanding of mathematics because of real world applications associated with the curriculum.
- Students indicated that because they had continuous access to mathematical resources on the mobile device, their instructional time dedicated to Algebra significantly increased.

The following is a summary of the current research data regarding phase II of Project K-Nect which was implemented during the 2009-10 school year. Project K-Nect classes are denoted with an asterisk symbol.

Algebra I – EOC Results

Southwest High School – Onslow County

Class	Teacher	EOC Proficiency Levels	Period of Evaluation
Algebra I	S. Kliewer*	91%	Spring 2009
Algebra I	Teacher A	76%	Spring 2009
Algebra I	Teacher B	60%	Spring 2009

Dixon High School – Onslow County

Class	Teacher	EOC Proficiency Levels	Period of Evaluation
Algebra I	H. Spring*	93%	Spring 2009
Algebra I	Teacher A	79%	Spring 2009
Algebra I	Algebra B	71%	Spring 2009
Algebra	Teacher C	67%	Spring 2009

Southern School of Engineering – Durham

Class	Teacher	EOC Proficiency Levels	Period of Evaluation
Algebra I	E. Moffitt*	71%	Spring 2009
Algebra I	Teacher A	48%	Spring 2009
Algebra I	Teacher A	0%	Spring 2009

Walkertown Middle School – Winston-Salem

Class	Teacher	EOC Proficiency Levels	Period of Evaluation
Algebra I	C.Webster*	96%	2008-09 School Year

Geometry – EOC Results

Southwest High School – Onslow County

Class	Teacher	EOC Proficiency Levels	Period of Evaluation
Geometry	S. Kliewer*	90%	Fall 2008
Geometry	Teacher A	74%	Fall 2008

Dixon High School – Onslow County

Class	Teacher	EOC Proficiency Levels	Period of Evaluation
Geometry	H.Spring*	65%	Fall 2008
Geometry	Teacher A	40%	Fall 2008
Geometry (H)**	Teacher B	70%	Fall 2008

**H= Honors

Algebra II – EOC Results

Southwest High School – Onslow County

Class	Teacher	EOC Proficiency Levels	Period of Evaluation
Algebra II	E. Kliewer*	83%	Spring 2009
Algebra II	Teacher A	71%	Spring 2009
Algebra II	Teacher A	33%	Spring 2009

Dixon High School – Onslow County

Class	Teacher	EOC Proficiency Levels	Period of Evaluation
Algebra II	H.Spring*	81%	Spring 2009
Algebra II (H)**	Teacher A	75%	Spring 2009
Algebra II	Teacher B	50%	Spring 2009
Algebra II	Teacher C	30%	Spring 2009

**H= Honors

As a continuation of the PsyMes report, Project Tomorrow independently assess efficacy on student achievement for the 2009-10 school year. Highlights of the report include:

- Students participating in Project K-Nect have a greater self-perception (61%) that they are succeeding academically than their national peers (39%). And they believe

that they are being better prepared for that success (55%) than other students (45%).

- Project K-Nect has provided a “safety net” of additional support for the students through the connections with classmates and teachers, and new approaches to learning math. As a result of participation in the program this year, over 90% of the students said that they are now more comfortable learning math, and 81% said that they have increased confidence talking about math and math problems.
- Almost two-thirds of the students reported taking additional math courses and over 50% are now thinking about a career in a math field as a result of participation in Project K-Nect.
- The teachers involved in Project K-Nect also report that their students are more responsible for their own learning and have developed more collaborative learning skills as a result. Additionally, the teachers note that their students are more active participants in the class, as either learners themselves or, in many cases, as teachers or peer coaches to their classmates. This was especially significant for students who are normally shy or reluctant class participants due to disabilities or limited English proficiency and can now participate more fully through the IM or blogging features.
- Project K-Nect participating students continue to pursue rigorous Mathematics instruction with 90% of the initial student cohort currently enrolled in AP Statistics, a college level statistics course taken by less than 1% of high school students nationwide. Project Tomorrow plans to track these students as they enter post-secondary schooling.
- We’re extremely optimistic about the findings and what they mean for the future of smartphones in the classroom,” says Julie Evans, Project Tomorrow Chief Executive Officer, whose organization prepared the evaluation report. “Students improved their scores in Math by an average of 20 percent, and this technology and wireless Internet access ensured the equitable delivery of engaging instruction, bridging the persistent digital and achievement divides. Project K-Nect and this report have significant new implications on how, when and where we engage students in a learning process.”

For access to the full comprehensive report, please visit the following url:
<http://www.tomorrow.org/research/ProjectKnect.html>.